



# modernization César E. Chávez Memorial Building

the césar e. chávez memorial building modernization project state-of-the-art high-performing green building leed silver contemporary sustainable design superior workplace reduce environmental foot-print energy efficiency innovative solar sculpture a new identity green features the césar e. chávez memorial building modernization project state-of-the-art high-performing green building leed silver contemporary sustainable design superior workplace reduce environmental footprint energy efficiency innovative solar sculpture a new identity green features the césar e. chávez memorial building modernization project state-of-the-art high-performing green building leed silver contemporary sustainable design superior workplace reduce environmental footprint energy efficiency innovative solar sculpture a new identity green features the césar e. chávez memorial building modernization project state-of-the-art high-performing green building leed silver contemporary sustainable design superior

## building details

In 2009, the 180,000 square feet 10-story César E. Chávez Memorial Building underwent a massive building modernization. The U.S. General Services awarded the contract to design-build partner GE Johnson Construction and architect on record, Tryba Architects. The efforts resulted in transforming the once overlooked federal building into a state-of-the-art, high-performing green building.

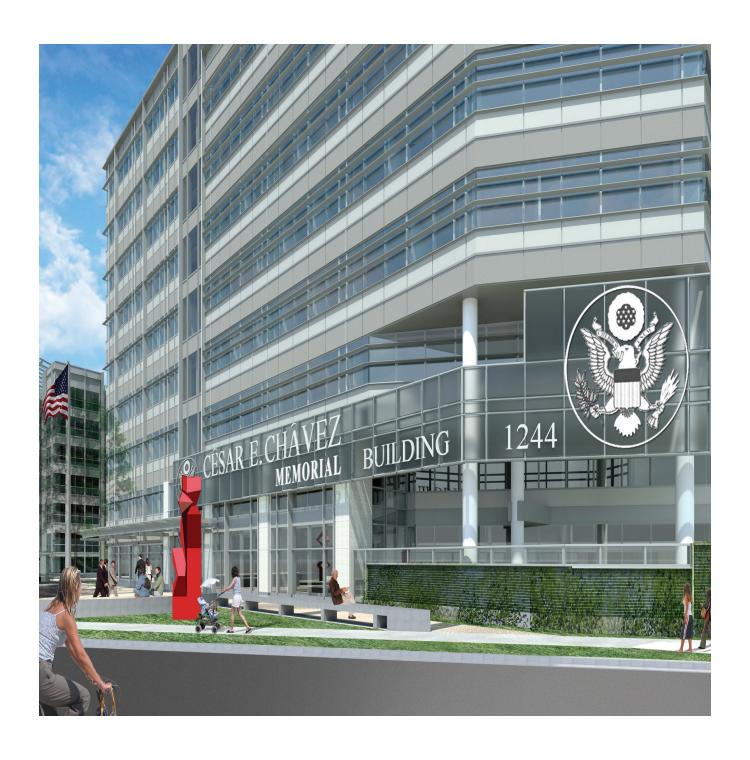
Improvements to the building include a new state-of-the-art building exterior consisting of an aluminum and glass curtain wall system that will assist in reducing the building's energy consumption by 30% and enhancing the natural light and view for the building tenants. The building is expected to attain Leadership in Energy and Environmental Design (LEED®) Silver certification.

Type: Office Building
Construction: Remodel
Size: 180,000 square feet

**Occupants:** Social Security Administration, Department of Agriculture, Government Accountability Office, Community Relations Service, Department of Education, Department of

Labor, Federal Labor and Relations Authority, and the General Services Administration.

Completion date: February 2013





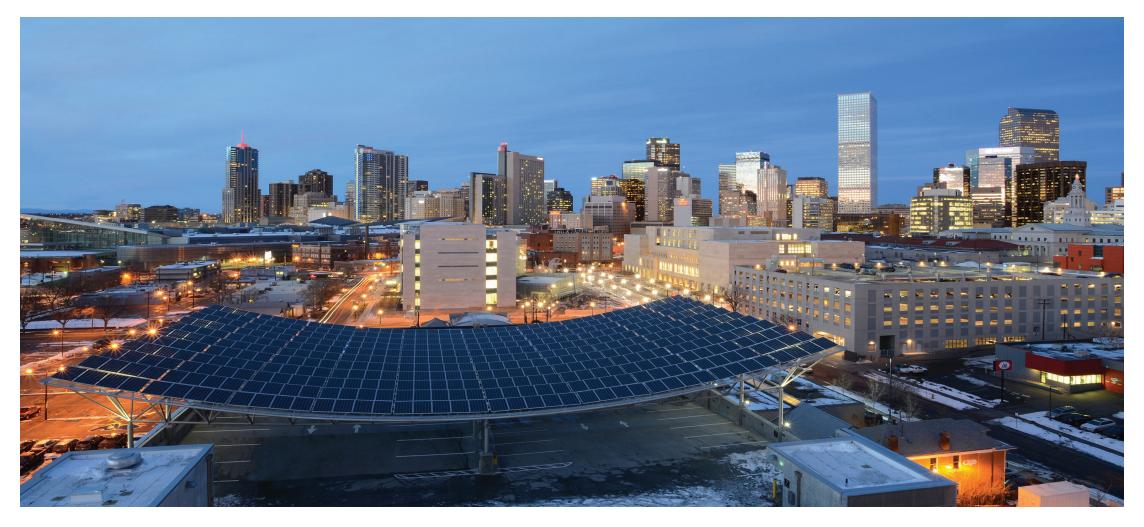
### green building team

**Building Owner:** "Sustainable design is vital to GSA's mission of providing the best value in real estate and delivering a superior workplace for federal employees. High performing sustainable buildings not only reduce the government's environmental footprint, but also makes good business sense. This is a win-win as this modernization has also turned a previously overlooked building into a beautiful structure that complements Denver's architecture." — Susan Damour, GSA Rocky Mountain Regional Administrator

Design-Build Partners: "While keeping the building fully occupied, the project team was faced with the unique challenge of replacing the entire exterior envelope and complete life safety upgrades throughout the building. This was achieved through finding an innovative solution to designing temporary exterior panels that were both structurally acceptable and provided adequate protection from the natural elements. In addition, hundreds of hours of coordination between the team of GSA, Jacobs, GE Johnson Construction and the multiple subcontractors played a key role in the success of the project. With all the building system shutdowns, start-ups and phases, the project would not have been successful without a full team commitment and involvement." —Travis Clem, GE Johnson Construction, Senior Project Engineer

**Design-Build Contractor and Architect-of-Record:** "The innovative design of the new curtain wall system and the enhanced and expanded lobby create a new identity for the building. Local materials, such as Colorado Yule, translucent glass and granite create the contemporary design with classic proportions, while insulated glass, energy efficient light fixtures and sun-control devices also enhance the sustainability of the building." —David Tryba, Tryba Architects

# green building features



















- **a.** Building envelope designed for 75 year lifespan.
- **b.** High efficiency glazing, south elevation includes solar fins to maximize natural daylight and deflect solar gain. Window size increased from 4.5 feet to 6 feet in height, and in some case, floor to ceiling.
- c. Controlled natural light with custom curtain wall mullions and sun shades.
- **d.** Use of locally available materials such as Yule marble, recycled steel, and terrazzo made from 50% recycled beer bottles from local breweries. 83% of construction waste diverted from landfills.
- e. A combination of water saving strategies will net a 30% reduction in water use.
- **f.** Consolidated mechanical and HVAC systems are expected to save 30% of energy costs in comparison to past usage.
- g. Updated light system, high efficiency Super T8 lighting with daylight harvesting and occupancy sensors for improved energy savings.
- h. Complete elevator modernization, high efficiency Otis Generation 2 elevators with monitor informational display.

### Connecting back to the Neighborhood

The office building's entrance lobby has doubled going from just about 1,500 to 3,300 square feet. The expansion reached further west to enclose the building's original outdoor arcade space, substantially improving the lobby's spaciousness, circulation, aesthetics and security.

The building's original front courtyard, along with the short stretch of Fox Street and the small triangle park owned by the city at the corner of Speer and 13th, has been reconfigured into a new integrated street/park/plaza that features a pedestrian-friendly and realigned Fox Street, landscaping, public art, and a hardscaped entry plaza. The result is that the Chavez Building no longer sits in isolation at the end of the block, but rather serves as a gateway building into Denver's Civic and Justice Center and the Golden Triangle Neighborhood.

### Solar Sculpture

Photovoltaics (PV) on the garage are expected to produce 115 kilowatt-hours of electricity that will offset annual energy consumption by 5% and hot water energy use by 30%. Building improvements included the construction of a new building parking garage that touts a one-of-a-kind rooftop solar sculpture. This solar sculpture has a unique open-air cable truss frame structure that displays a graceful swooped profile, yet it is built with a straight forward and durable frame. The curving form was for functionality and aesthetics, allowing the structure to blend into the neighborhood. All project components including the solar sculpture were designed with the community in mind. This PV array is integrated into the building's architecture rather than installed as an afterthought.

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